

Clinical Observation on the Efficacy of Ziwu Liuzhu Bagua Acupoint Therapy Combined with Chinese Herbal Hot Compress for Constipation in Chronic Heart Failure Patients with Qi-Yin Deficiency Pattern

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Abstract

Objective: To observe and analyze the clinical efficacy of Ziwuliuzhu Bagua acupoint pressure combined with traditional Chinese medicine hot compress in treating constipation symptoms in chronic heart failure patients with qi-yin deficiency pattern. **Methods:** Eighty chronic heart failure patients with qi-yin deficiency pattern complicated by constipation, admitted to our hospital from August 2022 to August 2023, were selected for a therapeutic study. Using a random number table method, patients were randomly divided into an observation group and a control group, with 40 cases in each group. The control group received conventional treatment and nursing care, while the observation group was treated with Ziwuliuzhu Bagua acupoint pressure combined with traditional Chinese medicine hot compress in addition to the control group's treatment, and the therapeutic effects of the two groups were compared. **Results:** The overall clinical effective rate in the observation group after receiving Ziwuliuzhu Bagua acupoint pressure combined with traditional Chinese medicine hot compress was significantly higher than that of the control group, with a significant difference between the two groups, and the difference was statistically significant ($P < 0.05$). **Conclusion:** Ziwuliuzhu Bagua acupoint pressure combined with traditional Chinese medicine hot compress demonstrates significant therapeutic advantages for constipation in chronic heart failure patients with qi-yin deficiency pattern.

Full Text

Observation on the Therapeutic Efficacy of Ziwu Liuzhu Bagua Acupoint Therapy Combined with Herbal Hot Compress in Treating Constipation in Chronic Heart Failure Patients with Qi and Yin Deficiency

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Abstract

Objective: To observe and analyze the clinical efficacy of Ziwu Liuzhu Bagua acupoint therapy combined with herbal hot compress in treating constipation symptoms in chronic heart failure patients with qi and yin deficiency. **Methods:** A treatment study was conducted on 80 chronic heart failure patients with qi and yin deficiency and constipation admitted to our hospital from August 2022 to August 2023. Patients were randomly divided into an observation group and a control group (40 cases each) using a random number table method. The control group received conventional treatment and nursing care, while the observation group received additional treatment with Ziwu Liuzhu Bagua acupoint therapy combined with herbal hot compress on the basis of the control group's regimen. Therapeutic effects were compared between the two groups. **Results:** The overall clinical effective rate in the observation group after receiving the combined treatment was significantly higher than that in the control group, with a statistically significant difference ($P < 0.05$). **Conclusion:** The combination of Ziwu Liuzhu Bagua acupoint therapy and herbal hot compress demonstrates significant advantages in treating constipation in chronic heart failure patients with qi and yin deficiency.

Keywords: Ziwu Liuzhu; Bagua acupoint therapy; herbal hot compress; chronic heart failure; constipation

Introduction

Constipation is a condition characterized by difficulty in defecation, prolonged intervals between bowel movements, or frequent but hard stools that are difficult to pass, even when the urge to defecate is present [1]. According to traditional Chinese medicine (TCM), normal bowel function is closely related to the balance of yin and yang in the body, the accumulation of pathogenic factors, and the smooth flow of qi. The primary pathological mechanism involves dysfunction of the large intestine's transportation function and impeded qi flow, which

is intimately associated with the liver, lungs, spleen, kidneys, and stomach [2]. Chronic heart failure patients with qi and yin deficiency typically present with palpitations, shortness of breath that worsens with exertion, and fatigue, which significantly limit their daily activities and often require absolute bed rest, predisposing them to constipation. Straining during bowel movements can trigger arrhythmias and heart failure episodes, further exacerbating the patient's condition, threatening their life safety, increasing suffering, and reducing quality of life [3]. Therefore, active treatment and prevention of constipation are crucial for heart failure patients with qi and yin deficiency. This study investigated the use of Ziwu Liuzhu Bagua acupoint therapy combined with herbal hot compress in 80 chronic heart failure patients with qi and yin deficiency and constipation admitted to our hospital from August 2022 to August 2023, achieving satisfactory clinical results.

Methods

1.1 General Information Eighty chronic heart failure patients with qi and yin deficiency and constipation admitted to our hospital from August 2022 to August 2023 were selected as study subjects. Using a random number table method and a parallel controlled observation design, the 80 cases were divided into an observation group and a control group, with 40 cases in each group. No significant differences were observed between the two groups in baseline data including average age, gender distribution, cardiac function classification, or TCM syndrome scores, making the groups comparable. All patients were fully informed and provided signed consent.

Inclusion Criteria: (1) Met TCM diagnostic criteria and relevant standards in the “Guiding Principles for Clinical Research of New Chinese Medicines in Treating Constipation”: main symptoms included reduced urge and frequency of defecation, difficulty or unsatisfactory defecation, or hard stools; secondary symptoms included abdominal distension, pain, fatigue, etc. Patients with main symptoms meeting TCM syndrome differentiation criteria were eligible. (2) Voluntarily agreed to participate in the study and signed informed consent.

Exclusion Criteria: (1) Constipation caused by organic lesions of the colon or rectum due to other diseases; (2) Constipation and melanosis coli caused by long-term use of laxatives; (3) Patients with severe primary diseases of the lungs, liver, kidneys, mental disorders, or other conditions; (4) Patients with psychiatric disorders or consciousness disturbances; (5) Patients with allergic constitutions or skin ulceration around selected acupoints; (6) Patients with poor compliance; (7) Cases with skin sensitivity, redness, or rash during the experiment were excluded.

1.2 Interventions **1.2.1 Conventional Treatment:** Both groups received conventional treatment and nursing care, including clockwise abdominal massage, adequate water intake, and consumption of light, easily digestible foods.

1.2.2 Combined Therapy in Observation Group: The observation group additionally received Ziwu Liuzhu Bagua acupoint therapy combined with herbal hot compress. According to research [4], no statistical difference exists between the Mao period (5:00-7:00) and the Si period (9:00-11:00); therefore, to avoid disturbing patients' rest, the Si period (9:00-11:00) was selected for Bagua acupoint therapy. Following the Ziwu Liuzhu principle, abdominal Bagua acupoint therapy was performed during the Si period. After lubricating both hands with oil, the operator massaged the entire abdomen in circular motions following the Bagua sequence of Qian-Kan-Gen-Zhen-Xun-Li-Kun-Dui, with 10 circular motions at each position. During the procedure, the operator maintained focused attention while instructing patients to inhale through the nose and exhale through the mouth with steady breathing. The herbal hot compress used our department's proprietary Tongbian formula, composed of: Rhubarb 10g, Senna leaf 3g, Sodium sulfate 3g, Dandelion 10g, Ophiopogon 15g, Aucklandia root 10g, and Scrophularia 15g. These herbs were placed in a 20 cm × 30 cm cotton bag, steamed in a Chinese medicine steamer, and applied to the Shenque acupoint when the temperature reached approximately 50°C as measured by a temperature gun, for 20-30 minutes each session. Precautions: The procedure should not be performed within 1 hour after meals; if abdominal skin redness or blisters occur after treatment, immediate emergency symptomatic treatment should be provided. Treatment was administered once daily for 7 days as one course.

1.2.3 Safety Evaluation: (1) Adverse reactions such as low-temperature skin burns and gastrointestinal discomfort were observed promptly during treatment. (2) General physical examination items (including body temperature, resting heart rate, respiration, and blood pressure) were monitored. Adverse reactions served as the primary safety evaluation indicators.

1.3 Evaluation Indicators Traditional Chinese medicine chronic constipation syndrome scores included six symptoms: defecation interval time, stool characteristics, defecation difficulty degree, time spent defecating, abdominal distension degree, and degree of poor appetite.

1.4 Evaluation Criteria **1.4.1 Symptom Scoring Standards:** Based on the "Expert Consensus on TCM Diagnosis and Treatment of Constipation (2017)," symptom scoring criteria were established as follows:

- **Defecation Difficulty Degree:** Grade 3: Frequently
- **Stool Characteristics:** Grade 3: Bristol Type 1
- **Defecation Interval Time (days/frequency):** Grade 3: More than 5 days
- **Time Spent Defecating (minutes):** Grade 3: Over 25 minutes
- **Abdominal Distension Degree:** Grade 0: None

Symptom Scoring Table

- **Degree of Poor Appetite:** Grade 3: Frequently

1.4.2 Clinical Efficacy Evaluation Criteria: Based on the “Guiding Principles for Clinical Research of New Chinese Medicines in Treating Constipation,” clinical efficacy criteria were established as shown in .

Clinical Efficacy Evaluation Criteria - **Cured:** Complete normalization of bowel movements with disappearance of all accompanying symptoms. - **Markedly Effective:** Significant symptom improvement with near-normal stool consistency, shortened defecation time, and defecation frequency reduced to within 72 hours, with most other symptoms disappeared. - **Effective:** Defecation frequency reduced by 24 hours, some improvement in hard stools, and reduction in other accompanying symptoms. - **Ineffective:** No significant improvement in constipation or other symptoms.

1.4.3 TCM Symptom Efficacy Evaluation Criteria: Based on the “Guiding Principles for Clinical Research of New Chinese Medicines,” efficacy criteria were established as shown in .

TCM Symptom Efficacy Evaluation Criteria - **Cured:** Disappearance or basic disappearance of main and secondary symptoms - **Markedly Effective:** 70% ≤ efficacy index < 95% - **Effective:** 30 ≤ efficacy index < 70% - **Ineffective:** Efficacy index < 30%

Efficacy index = [(Pretreatment symptom score - Posttreatment symptom score) / Pretreatment symptom score] × 100%. Total effective rate = Cure rate + Markedly effective rate + Effective rate.

1.5 Statistical Analysis Data analysis and comparison were performed using SPSS 23.0 statistical software. Measurement data were expressed as (x±s) and compared using t-tests; count data were expressed as rates or percentages [n(%)] and compared using ² tests. P<0.05 was considered statistically significant.

Results

The overall clinical effective rate in the observation group after receiving Ziwu Liuzhu Bagua acupoint therapy combined with herbal hot compress was significantly higher than that in the control group, with a statistically significant difference (P<0.05), as shown in . Cure rates can also be compared using this data.

Comparison of Treatment Effects Between Two Groups

Group	n	Cured	Markedly Effective	Effective	Ineffective	Total Effective Rate
Treatment	40	18 (45%)	12 (30%)	10 (25%)	0 (0%)	40 (100%)
Control	40	8 (20%)	10 (25%)	16 (40%)	6 (15%)	34 (85%)

Note: Comparison of total effective rates between groups, P<0.05.

Discussion

Heart failure patients with compromised cardiac function require bed rest, which significantly limits their daily activities and predisposes them to constipation [5]. Although many medications and treatment methods currently exist for constipation in heart failure patients, their safety profiles and overall efficacy remain unsatisfactory, with patients often experiencing diarrhea, abdominal pain, and other symptoms after taking medications. Therefore, identifying safe and effective interventions represents a key clinical priority [6]. Through literature review [7-16] and combined with clinical practice, this study investigated the efficacy of Ziwu Liuzhu finger acupoint therapy combined with herbal hot compress for constipation in chronic heart failure patients with qi and yin deficiency, providing a more effective and side-effect-free clinical approach.

Ziwu Liuzhu is a law discovered by ancient Chinese medical sages, where the 12 two-hour periods of the day correspond to the 12 meridians of the human body. Each period has varying degrees of qi and blood abundance in the corresponding meridian, and acupoints are selected based on these fluctuations. The Si period (9:00-11:00) corresponds to the Large Intestine Meridian. Performing Bagua acupoint therapy during the Si period can better promote intestinal peristalsis and facilitate defecation. According to Ziwu Liuzhu principles, abdominal Bagua acupoint therapy performed during the Si period utilizes the Bagua trigram Kun, which corresponds to the earth element in the Five Elements theory, has the innate number eight, corresponds to the spleen organ, and is interiorly-exteriorly related to the stomach, thus governing the digestive system.

The herbal hot compress used our department's proprietary Tongbian formula prescribed by renowned senior TCM physicians, composed of: Rhubarb 10g, Senna leaf 3g, Sodium sulfate 3g, Dandelion 10g, Ophiopogon 15g, Aucklandia root 10g, and Scrophularia 15g. Rhubarb exerts purgative and accumulation-attacking effects while clearing heat and purging fire. The *Shennong Bencaojing* records: "Rhubarb, bitter and cold, enters the stomach, liver, and large intestine meridians, primarily treats blood stasis, amenorrhea with fever and chills, breaks concretions and accumulations, removes retained fluids and old food, cleanses the stomach and intestines, eliminates the old and brings forth the new, facilitates water and grains, regulates the middle and transforms food, and pacifies the five viscera" [17]. Senna leaf has heat-purging and stagnation-moving effects to promote defecation and diuresis. Sodium sulfate is a traditional Chinese medicine; the *Dictionary of Chinese Materia Medica* records that sodium sulfate is bitter and salty, with bitterness capable of draining heat and saltiness capable of softening hardness, entering the spleen, stomach, large intestine, liver, and pericardium meridians and the blood level, thus effectively eliminating blood stasis, unblocking stagnation, clearing heat and purging fire, cooling blood and detoxifying, and clearing damp-heat. Dandelion clears heat and detoxifies. Ophiopogon is moistening and sweet-nourishing, capable of moistening intestinal dryness to promote defecation. Aucklandia root moves

qi to relieve pain and strengthens the spleen to promote digestion. Scrophularia is sweet, bitter, and salty, slightly cold, with heat-clearing and yin-nourishing, softening hardness and dispersing lumps effects [18]. The combined use of these multiple herbs can promote intestinal peristalsis and help patients defecate.

In summary, Ziwu Liuzhu Bagua acupoint therapy combined with herbal hot compress can improve clinical efficacy in treating constipation in chronic heart failure patients. By stimulating relevant acupoints during the Si period when the spleen meridian is most abundant, combined with hot compress application at the Shenque acupoint, this approach can regulate the spleen and stomach, unblock qi and blood, and treat constipation. Compared with traditional massage techniques, it more effectively resolves constipation problems, and compared with oral medication, it is more readily accepted by patients. The hot compress application process enhances nurse-patient communication, allows patients to experience the charm of TCM, increases comfort during hospitalization, is simple to operate, and has strong practical value, warranting further clinical promotion and application.

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